

Application No. 09/346,470
Amendment dated July 28, 2003
Response to July 28, 2003 Request of Examiner

In the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1-78. Canceled.

1 79. (Previously presented) An isolated nucleic acid molecule comprising a nucleotide sequence which encodes or is complementary to a sequence which encodes an ecdysteroid receptor (EcR) polypeptide that binds ecdysone, wherein the encoded EcR polypeptide consists essentially of the amino acid sequence set forth in SEQ ID NO:10.

2 80. (Previously presented) The isolated nucleic acid molecule of claim 79¹, wherein said sequence consists essentially of the nucleotide sequence set forth in SEQ ID NO:9.

D1 3 81. (Previously presented) The isolated nucleic acid molecule of claim 79¹, wherein the isolated nucleic acid molecule further encodes an EcR partner protein (USP polypeptide) of a *Myzus persicae* EcR heterodimer, which USP polypeptide consists essentially of an amino acid sequence as set forth in SEQ ID NO:12.

4 82. (Previously presented) the isolated nucleic acid molecule of claim 81³, wherein the USP polypeptide is encoded by the nucleic acid sequence set forth in SEQ ID NO:11.

5 83. (Previously presented) The isolated nucleic acid molecule of claim 81⁷, wherein the USP polypeptide is identical to that encoded by cDNA present in plasmid pMpUSP (AGAL Accession No. NM99/04568).

Application No. 09/346,470
Amendment dated July 28, 2003
Response to July 28, 2003 Request of Examiner

6 84. (Previously presented) The isolated nucleic acid molecule of claim 79; wherein said polypeptide consists of an amino acid sequence encoded by a cDNA present in the plasmid deposited under AGAL Accession No. NM99/04567.

7 85. (Currently amended) An isolated nucleic acid molecule comprising a nucleotide sequence which encodes or is complementary to a sequence which encodes an ecdysteroid receptor (EcR) polypeptide that binds ecdysone, ecdysone when said EcR polypeptide is in association with a USP polypeptide, wherein said EcR polypeptide consisting consists of an amino acid sequence having at least 60% amino acid sequence identity to the amino acid sequence set forth in SEQ ID NO:10, wherein with the proviso that said encoded EcR polypeptide is not a *Drosophila melanogaster* EcR polypeptide.

D) 8 86. (Previously presented) The isolated nucleic acid molecule of claim 85; wherein said EcR polypeptide consists of an amino acid sequence having at least 80% amino acid sequence identity to the amino acid sequence set forth in SEQ ID NO:10.

9 87. (Previously presented) The isolated nucleic acid molecule of claim 86; wherein said EcR polypeptide consists of an amino acid sequence having at least 90% amino acid sequence identity to the amino acid sequence set forth in SEQ ID NO:10.

10 88. (Previously presented) The isolated nucleic acid molecule of claim 85, wherein the EcR polypeptide is derived from a member of the genus *Myzus*.

11 89. (Previously presented) The isolated nucleic acid molecule of claim 85, wherein the insect is *Myzus persicae*.

12 90. (Previously presented) The isolated nucleic acid molecule of claim 85, wherein the isolated nucleic acid molecule further encodes and EcR partner protein (USP polypeptide) of the *M.*

Application No. 09/346,470
Amendment dated July 28, 2003
Response to July 28, 2003 Request of Examiner

persicae EcR polypeptide, wherein the USP polypeptide consists essentially of an amino acid sequence set forth in SEQ ID NO:12.

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91. (Previously presented) A genetic construct comprising the isolated nucleic acid molecule of claim 79, wherein said nucleotide sequence is operably linked to a promoter sequence.

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92. (Previously presented) The genetic construct of claim 91, wherein said promoter sequence is a MMTV, SV40, polyhedrin or p10 promoter sequence.

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93. (Previously presented) A cell comprising the genetic construct of claim 91.

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94. (Previously presented) The cell of claim 93, wherein the cell further comprises a nucleic acid molecule encoding an ecdysteroid receptor partner protein (USP polypeptide) which is expressed in said cell.

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95. (Previously presented) An isolated nucleic acid molecule comprising a nucleotide sequence which encodes or is complementary to a sequence which encodes a ecdysteroid receptor (EcR) polypeptide, wherein said ecdysteroid receptor polypeptide is not from *Drosophila melanogaster*, wherein said EcR polypeptide binds ecdysone, and wherein said nucleotide sequence is selected from the group consisting of:

- (i) a nucleotide sequence having at least 60% identity to the nucleotide sequence set forth in SEQ ID NO:9, or a complementary nucleotide sequence thereto;
- (ii) a nucleotide sequence that hybridises under at high stringency conditions to the nucleotide sequence set forth in SEQ ID NO:9 or to a complementary nucleotide sequence thereto, wherein high stringency conditions are a hybridisation and/or a wash carried out in 0.1xSSC-0.2xSSC buffer, 0.1% (w/v) SDS at a temperature of at least 55°C;

Application No. 09/346,470
Amendment dated July 28, 2003
Response to July 28, 2003 Request of Examiner

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- (iii) a nucleotide sequence having at least 60% identity to a nucleotide sequence of a cDNA present in the plasmid deposited under AGAL Accession No. NM99/04567; and
 - (iv) a nucleotide sequence that is capable of hybridising under high stringency conditions to a cDNA present in the plasmid deposited under AGAL Accession No. NM99/04567, wherein high stringency conditions are a hybridisation and/or a wash carried out in 0.1xSSC-0.2xSSC buffer, 0.1% (w/v) SDS at a temperature of at least 55°C.
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